

Section 1.1: What Are Data?

Statistics rests on two major concepts:

a) Data

Experiments
Surveys
Databases
Websites (API,...)

b) Variation

Measure of spread
- variance
- standard deviation

Statistics is the science of:

- Collecting
- Organizing
- Summarizing
- Analyzing Data

For the purpose of:

- Answering questions and/or
- Drawing conclusions

Context is important! Some questions you can ask:

- Who, or what, was observed?
- How were they measured?
- Who collected the data?
- Where/when/why were the data collected?
- What variables were measured?
- What are the units of measurement?
- How did they collect the data?